

INTERNATIONAL SEARCH REPORT

1

International application No.

PCT/FI 00/00707

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C12N 1/14, C12N 15/80 // C12N 1/15
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9822598 A1 (NOVO NORDISK BIOTECH, INC.), 28 May 1998 (28.05.98), see page 2, lines 19-25 --	1-34
A	Dialog Information Services, file Biosis Previews, Dialog accession no. 11132349, Biosis no. 199799753494, Nakari-Setälä Tiina(a) et al: "Differential expression of the vegetative and spore-bound hydrophobins of Trichoderma reesei: Cloning and characterization of the hfb2 gene"; & European Journal of Biochemistry 248 (2):p415-423 1997 --	4,18-20, 26-28
A	WO 9641882 A1 (PROEFSTATION VOOR DE CHAMPIGNONCULTUUR), 27 December 1996 (27.12.96) --	4,18-20, 26-28



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

22 December 2000

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Date of mailing of the international search report

03 -01- 2001

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JAOCs, Volume 73, No 1, 1996, Hary Razafindralambo et al, "Foaming Properties of Surfactin, a Lipopeptide Biosurfactant from Bacillus subtilis", page 149 - page 151, see abstract	1-34
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X	Journal of Bacteriology, Volume 175, No 11, June 1993, Cletus D'souza et al, "Amino-Acylation Site Mutations in Amino Acid-Activating Domains of Surfactin Synthetase" page 3502 - page 3510	11-17,21-25, 29-33
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X	Mol Gen Genet, Volume 232, 1992, Michiko M. Nakano et al, "Isolation and characterization of sfp: a gene that functions in the production of the lipopeptide biosurfactant, surfactin, in Bacillus subtilis" page 313 - page 321	11-17,21-25, 29-33
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X	Journal of Bacteriology, Volume 176, No 2, January 1994, Dirk Vollenbroich et al, "Analysis of Surfactin Synthetase Subunits in srfA Mutants of Bacillus subtilis OKB105" page 395 - page 400	11-17,21-25, 29-33
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INTERNATIONAL SEARCH REPORT

Information on patent family members

04/12/00

International application No.

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Patent document cited in search report			Publication date	Patent family member(s)		Publication date
WO	9822598	A1	28/05/98	AU	5445098 A	10/06/98
				EP	0941349 A	15/09/99
				US	5958728 A	28/09/99

WO	9641882	A1	27/12/96	AU	5914196 A	09/01/97
